

ORIGINAL

RECEIVED

BEFORE THE

Federal Communications Commission

JAN 31 1992

Federal Communications Commission
Office of the Secretary

ORIGINAL
FILE

In the Matter of)
)
Advanced Television Systems)
and Their Impact Upon the)
Existing Broadcast Service)

MM Docket No. 87-268

To: The Commission

REPLY COMMENTS OF GOLDEN ORANGE BROADCASTING CO., INC.

Golden Orange Broadcasting Co., Inc. ("Golden Orange"), licensee of independent UHF Television Broadcast Station KDOC-TV, Anaheim, California, pursuant to Section 1.415 of the Commission's Rules, hereby submits its reply comments in the above-captioned matter regarding implementation of Advanced Television (ATV) service and its impact on current television service (based on National Television System Committee (NTSC) transmission standards). In support thereof, the following is set forth.

1. **Spectrum Issues.** In its comments Golden Orange stated its belief that there will be a continuing need for NTSC channels and that any spectrum allocation plan for ATV should made provision for continuing NTSC service; accordingly, Golden Orange advocated a single contiguous band of ATV channels and a separate contiguous band of UHF channels for continuing NTSC use as being the most spectrum efficient matter in which to proceed. Subject to testing, evaluation and adoption of digital video standards as well as

No. of Copies rec'd
List A B C D E

049

transmission and propagation standards, single contiguous bands of ATV and NTSC channels would have several inherent advantages such as permitting alternate vertical and horizontal polarization in major markets, cross polarization in other markets and narrower guard bands for separation between channels, thereby contributing to the most efficient spacing of the largest number of channels, particularly in crowded metro areas.

2. While a spectrum efficient allocation plan to accommodate both ATV and NTSC channels on the UHF band appears feasible, any allocation plan is necessarily dependent on testing and evaluation of FM modulated digital transmissions in the UHF spectrum, the adoption of transmission and propagation standards and specification of television receiver standards. For those reasons, it may be premature and inappropriate to address spectrum issues until more data is available.

3. For example, in the Los Angeles television market, which has more television stations (26) than any other market and, thus, provides a worst case situation, Golden Orange believes that it is possible to provide all existing stations with both ATV and NTSC channels in the UHF band through a channel paring plan, accomplished in stages, that would rely on shifting the radiation polarity of alternate channels to allow for the intermixture of digital ATV channels and existing NTSC services; a sample ATV/NTSC allocation plan for the Los Angeles television market is set forth at Attachment A. On the other hand, the Joint Broadcaster Comments

(at p.27) state that to repack the VHF and UHF bands to condense the broadcast bands into a smaller contiguous band of channels is not "remotely feasible" in every market as a technically viable spectrum management option.

4. In the absence of test and evaluation data for ATV technology, Golden Orange urges that the Commission deal with spectrum issues in the following order:

a. Determine what is the desired performance on home receivers for ATV channels; the UHF taboos and receiver specifications must be tightened to accommodate higher density UHF assignments.

b. Determine whether NTSC or an advanced NTSC compatible format, will continue for the foreseeable future in conjunction with the new digital ATV format.

c. Determine whether use of the VHF band should ultimately be discontinued as part of the ATV conversion process in favor of an all UHF system.

d. Establish a requirement that, whatever spectrum allocation plan is adopted, all existing television licensees and permittees, even in the largest and most congested television markets, receive an ATV channel to be operated in conjunction with NTSC or a compatible advanced version of NTSC so long as there is market demand for NTSC service.

e. Complete testing of digital compression techniques to determine the most spectrum efficient and highest quality ATV format.

f. Complete transmission testing and spectral compression techniques of the selected digital ATV format to determine propagation standards and bandwidth requirements for effective coverage; ATV co-channel interference is likely to be less than that with NTSC channels, especially since ATV power and coverage levels, most likely, will be less than existing high power VHF services.

5. Assignment of Channels. Golden Orange supports the Commission's proposal to assign ATV channels to those communities of license currently listed in the television table of allotments set forth at Section 73.606 of the Commission's Rules. The Joint Broadcaster Comments (at pp. 4-7), however, support the assignment of ATV channels based on current NTSC transmitter sites rather than on the basis of communities of license as a site specific channel pairing plan would permit collocation of NTSC and ATV transmitters, thereby reducing expenses and expediting the introduction of ATV service.

6. From a technical standpoint, the use of existing NTSC transmitter sites may not be the most advantageous location for the ATV transmitter, and, indeed, might actually limit ATV coverage. For example, in the Los Angeles market, Mount Wilson is the antenna farm where current NTSC transmitters are located; if ATV transmitters were located at an antenna farm on Mount Santiago, directional antennas receiving NTSC service from Mount Wilson would be orientated away from the proposed ATV antenna farm and cross polarized to prevent adjacent channel interference.

7. A plan to allocate ATV channels on the basis of communities is also preferable for reasons other than technical. A community ATV allocation plan would allow for greater flexibility, ease of implementation and better insure that all current NTSC licensees and permittees would receive a corresponding ATV allocation. However, should the Commission adopt a random

pairing plan for ATV allotments which results in too few channels for all existing licensees and permittees in major markets, the allocation priority for selecting ATV channel recipients should be based on the following criteria:

a. Financial qualifications similar to those now required for new broadcast facilities since adding an ATV channel would be similar to constructing a new station;

b. Seniority in the length of time that a licensee or permittee has continuously operated the NTSC channel in the market;

c. To the extent possible, seek to preserve the relevant position and channel number of current stations;

d. As a last resort, assign ATV channels on a random lottery basis.

8. Simulcasting. Golden Orange believes that high definition ATV programming and existing NTSC programming are essentially different types of television media and that there will always be a need for NTSC operations notwithstanding the development of ATV. Accordingly, Golden Orange does not believe that simulcasting is either necessary or appropriate; however, if the Commission imposes a simulcasting requirement, that requirement should be minimal, such as only during prime time viewing hours or a portion of prime time hours. Golden Orange supports the Joint Broadcaster Comments (pp. 28-31) that any simulcasting requirements be minimal and flexible as independent programming of ATV and NTSC channels may be desirable and in the best interest of the public.

9. Cable Carriage of ATV Channels. As Golden Orange believes that NTSC and ATV channels should be more appropriately programmed separately and since implementation of ATV will involve substantial capital investment on the part of broadcasters and additional costs for consumers purchasing receivers, it is important that the Commission consider the impact of cable television carriage (or lack of cable carriage) on the development of ATV. With cable television penetration at approximately sixty percent (60%), lack of ATV signal carriage by cable systems will create substantial financial and developmental roadblocks to ATV implementation. Accordingly, Golden Orange supports the Joint Broadcaster Comments (pp. 39-41) urging that the competitive impact of cable television systems be assessed and addressed by the Commission at an early and initial stage.

10. Other Matters. Because Golden Orange supports a channel allocation plan which would provide for contiguous groupings of both NTSC and ATV channels in the UHF band it concurs with the Joint Broadcaster Comments (pp. 36-38) urging that the Commission terminate General Docket No. 85-172 regarding the proposed sharing of the UHF spectrum with land mobile users. Moreover, a contiguous UHF band allocation plan would provide a basis for inexpensive tuner design for ATV receivers, a factor which should be of considerable concern to the Commission as well as to the public.

Conclusion

Golden Orange urges the Commission to adopt an ATV channel allocation plan which recognizes a continuing public need for NTSC service along with the technological benefits of ATV service and, on such basis, to devise a spectrum efficient allocation plan and procedures for allocating such ATV channels.

Respectfully submitted

GOLDEN ORANGE BROADCASTING CO., INC.

By



Calvin C. Brack
Secretary-Treasurer

January 20, 1992

ATTACHMENT A

ALTERNATE UHF-TV, DUAL STANDARD, DUAL POLARIZATION ALLOTMENT
SUGGESTED FOR LOS ANGELES METRO AREA [INTERMIX ATV]

CHANNEL#	POL	DESIG	SERVICE	PRIORITY ASSIGN	LOS ANGELES
14	H	CH 14	NTSC-----	AVAILABLE	CNN BDCST
15	V	A1	ATV	PRIMARY ETV	KCET-A
16	H	CH 16	NTSC-----	(CH-2 RESERVED)	KCBS
17	V	A2	ATV	VHF CH. 2	KCBS-A
18	H	CH 18	NTSC-----	EXISTING (18)-----	KSCI
19	V	A3	ATV	UHF REASSIGN	KOCE-A
20	H	CH 20	NTSC-----	(CH-4 RESERVED)	KNBC
21	V	A4	ATV	VHF CH. 4	KNBC-A
22	H	CH 22	NTSC-----	EXISTING (22)-----	KWHY
23	V	A5	ATV	VHF CH. 5	KTLA-A
24	H	CH 24	NTSC-----	EXISTING (24)-----	KVCR
25	V	A6	ATV	UHF REASSIGN	KTBN-A
26	H	CH 26	NTSC-----	(CH-5 RESERVED)	KTLA
27	V	A7	ATV	VHF CH. 7	KABC-A
28	H	CH 28	NTSC-----	EXISTING (28)-----	KCET
29	V	A8	ATV	UHF REASSIGN	KMEX-A
30	H	CH 30	NTSC-----	EXISTING (30)-----	KAGL
31	V	A9	ATV	VHF CH. 9	KCAL-A
32	H	CH 32	NTSC-----	(CH-7 RESERVED)	KABC
33	V	A10	ATV	UHF REASSIGN	KDOC-A
34	H	CH 34	NTSC-----	EXISTING (34)-----	KMEX
35	V	A11	ATV	VHF CH. 11	KTTV-A
36	H	CH 36	NTSC-----	(CH-9 RESERVED)	KCAL
37	V	A12	ATV	UHF REASSIGN	KLCS-A
38	H	CH 38	NTSC-----	(CH-11 RESERVED)	KTTV
39	V	A13	ATV	VHF CH. 13	KCOP-A
40	H	CH 40	NTSC-----	EXISTING (40)-----	KTBN
41	V	A14	ATV	UHF REASSIGN	KVEA-A
42	H	CH 42	NTSC-----	(CH-13 RESERVED)	KKOP
43	V	A15	ATV	UHF REASSIGN	KWHY-A
44	H	CH 44	NTSC-----	NEW (44)	NEW
45	V	A16	ATV	UHF REASSIGN	KHSC-A
46	H	CH 46	NTSC-----	EXISTING (46)-----	KHSC
47	V	A17	ATV	UHF REASSIGN	KVCR-A
48	H	CH 48	NTSC-----	AVAILABLE	--
49	V	A18	ATV	UHF REASSIGN	KRCA-A
50	H	CH 50	NTSC-----	EXISTING (50)-----	KOCE
51	V	A19	ATV	UHF REASSIGN	--
52	H	CH 52	NTSC-----	EXISTING (52)-----	KVEA
53	V	A20	ATV	UHF REASSIGN	--
54	H	CH 54	NTSC-----	NEW (54)	NEW
55	V	A21	ATV	UHF REASSIGN	HBO ENC
56	H	CH 56	NTSC-----	EXISTING (56)-----	KDOC
57	V	A22	ATV	UHF REASSIGN	DISNEY ENC
58	H	CH 58	NTSC-----	EXISTING (58)-----	KLCS
59	V	A23	ATV	UHF REASSIGN	PAY PER VIEW
60	H	CH 60	NTSC-----	AVAILABLE	--
61	V	A24	ATV	AVAILABLE	SHOWTIME
62	H	CH 62	NTSC-----	EXISTING (62)-----	KRCA
63	V	A25	ATV	AVAILABLE	A&E ENCODED
64	H	CH 64	NTSC-----	LPTV	--
65	V	A26	ATV	AVAILABLE	MTV ENCODED
66	H	CH 66	NTSC-----	LPTV	--
67	V	A27	ATV	AVAILABLE	SPORTS ENC
68	H	CH 68	NTSC-----	NEW (68)	NEW
69	V	A28	ATV	AVAILABLE	AVAILABLE